

CLAIM AMENDMENTS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims

Claims 1-20 (cancelled)

21. (new) An apparatus for a cochlear implant comprising:

an elongated and substantially flat electrode carrier guide comprising:

a plurality of electrodes, wherein each electrode is connected to a corresponding contact through a conducting track;

at least two overlapping basic cells, the basic cells comprising:

a base layer made of electrically insulating material; and

a layer of electrically conducting material arranged on the base layer;

wherein the electrodes, conducting tracks and contacts are formed from the electrically conducting material.

22. (new) The apparatus of claim 21, wherein the two overlapping basic cells comprise an overlying and an underlying basic cell, wherein the overlying basic cell has a length shorter than the length of the underlying basic cell.

23. (new) The apparatus of claim 22, wherein the basic cell comprises an insulating layer arranged on the electrically conducting layer, wherein the insulating layer comprises access openings in correspondence with each electrode and the corresponding contact.

24. (new) The apparatus of claim 23, wherein the insulating layer of the underlying cell comprises the base layer of the overlying cell.

25. (new) The apparatus of claim 21, wherein at least two cells comprise three electrodes essentially aligned in the longitudinal direction of the cells.
26. (new) The apparatus of claim 21, wherein the width of the basic cells ranges from 0.3 to 2.5 mm.
27. (new) The apparatus of claim 21, wherein the thickness of the base layer ranges from 2 μm to 5 μm and the thickness of the electrically conductive layer ranges from 0.1 μm to 0.5 μm .
28. (new) The apparatus of claim 21, wherein the distance between the electrodes of the basic cells range from 0.25 μm to 10 μm .
29. (new) The apparatus of claim 21, wherein the basic cells narrow in the longitudinal portion where the electrodes are arranged.
30. (new) The apparatus of claim 21, wherein the base layer material is selected from the group consisting of PTFE, PET, polyimide, silicone and paraxylene based polymers.
31. (new) The apparatus of claim 21, wherein the electrically conduct layer is made of a material selected from the group consisting of gold, platinum and platinum-iridium alloy.
32. (new) The apparatus of claim 21, wherein each comprises a film made of a material suitable for enhancing adherence, wherein the film is arranged between the base layer and the electrically conducting layer.
33. (new) The apparatus of claim 32, where the film is selected from the group comprising titanium, tantalum and chrome.

34. (new) The apparatus of claim 21, wherein the apparatus comprises a cochlear implant.

35. (new) A method for manufacturing an electrode carrier guide comprising:

forming a basic cell by:

preparing a sacrificial wafer;

depositing a base layer made of an electrically insulating material on the wafer;

depositing a layer of photosensitive resin on the electrically insulating layer;

photolithographically designing a region comprising a geometry of electrodes, tracks and contacts;

depositing a layer made of an electrically conducting material onto the resin layer;

removing the resin and electrically conducting material deposited outside the photolithographically designed region;

depositing a second electrically insulating layer onto the electrically conducting layer, wherein the second electrically insulating layer completely covers the electrically conducting layer;

forming access windows in the second electrically insulating layer, wherein the access windows provide access to the underlying electrodes and contacts;

repeating steps b-h to form more than one basic cell; and

removing the sacrificial wafer.

36. (new) The method of claim 35, further comprising forming at least two electrode guides on the wafer.

37. (new) The method of claim 36, further comprising:

separating the at least two electrode guides by cutting the wafer.

38. (new) The method of claim 36, further comprising:

forming guide access windows for removing the electrically insulating material located between the adjacent electrode guides, wherein the removed electrically insulating material separates the guides.

39. (new) The method of claim 35, wherein at least one of the layers formed in the method is cured.

40. (new) The method of claim 35, further comprising depositing a film of a material suitable for enhancing adherence between the resin layer and the electrically conducting material.